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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/539,809

06/20/2005

Jean Marie Bamelis

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11/06/2006

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EXAMINER

MUROMOTO JR, ROBERT H

ART UNIT

PAPER NUMBER

3765

DATE MAILED: 11/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

NT

|                              |  |                                       |  |
|------------------------------|--|---------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/539,809       | <b>Applicant(s)</b><br>BAMELIS ET AL. |  |
|                              | <b>Examiner</b><br>Robert H. Muromoto, Jr. | <b>Art Unit</b><br>3765               |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/20/2005</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Priority*

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### *Claim Objections*

Claim 7 is objected to because of the following informalities: Claim 7 is amended to recite for "detecting the weft thread" but it appears the original claim cited "deflector devices". The examiner assumes based on the specification and drawings that the claim should recite "deflector devices" and has examined claim 7 as such. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Grimm et al. US patent 4,962,796.

Grimm discloses, "An **air jet loom** is provided with a brake (i.e. clamp) for braking a weft yarn and a set of deflectors **at least one of which is movable in a controlled manner to impart tension in the weft yarn. The movement of the movable deflector can be controlled to reduce the amount of deflection during a braking operation to reduce stress peaks in the weft yarn. The movable**

**deflector may be controlled by a spring, an electromagnet and/or a pneumatic reciprocating actuator** (abstract)."

The whole apparatus is considered to correspond to the "apparatus for stretching a weft thread..." as claimed.

In figure 8, deflector 23 and surface 33 correspond to recited "thread clamp". Upstream of which deflector 22 corresponds to "actuatable" device. There is inherently an adjustable, regulatable control means and **at least one motion detecting device** as Grimm states all deflectors (start, duration, and/or magnitude (force)) are preferably variably controlled at all times by measuring yarn speed (motion).

The assemblies cited above are clearly "next to each other" and on the same side of the shed as claimed.

Figures clearly show plural deflector devices as claimed.

Grimm states that the braking and damping means may be separately arranged and controlled or combined and controlled simultaneously as recited in claims 8-10.

Figures show the braking and damping means on the sley as recited.

Figure 1 and 2 clearly shows the sley having a reed with weft duct guide 9, and braking and dampening means disposed along an extension of the weft duct guide as claimed.

Figure 8 clearly shows the braking and dampening means outside the boundary of the weft transport duct as recited.

"Referring to FIG. 7 the braking and damping means 20c is in the form of a **pneumatic reciprocating actuator 29** for moving a top deflector 23 in the

direction indicated by the arrow. **By way of a compressed air connection 30, the actuator 29 communicates with an appropriate compressed air supply (not shown). The use of a pneumatic reciprocating actuator 29 permits the different parameters affecting the combined braking and damping element to be varied in a relatively simple manner. The adjustment can be made directly at the loom terminal by appropriate actuation by means of a solenoid valve similar to that of a relay nozzle valve 10** (col. 4, line56-69)."

"Increasing the pressure increases the speed of piston movement and simultaneously reduces damping. This may often not be desirable. First, accurate and rapid engagement is preferred and to assist variability should have a very short reaction time. Second, a reduced spring rate is desirable.

**Both requirements can be satisfied if the deflection and damping functions are separated** (col. 5, lines 1-10)."

Limitations of Claims 14, 15, 19 and 20 are clearly disclosed in citation above. The limitations of claims 16 and 17 are inherent as Grimm has already stated that the duration and magnitude of the braking and dampening means are continuously controlled and variably regulated to control the effects of these devices.

With respect to claim 18, Grimm states that the adjustment to the pneumatic system can be made by means of a solenoid valve. Also though not shown, Grimm states all deflectors could be separately arranged pneumatically and this would require at least two delivery lines as recited.

Method claims 21-23 are also clearly disclosed by citations above.

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With regard to yarn clamp at opposite side of insertion as recited in claim 21, Grimm discloses a catching means that would correspond to said yarn clamp on opposite side from the insertion side. The yarn is inherently held until beat-up as in all weaving operations.

The limitations of claim 4 are considered inherent to Grimm. The weft storage drum 5 of any weaving device performs the so-called "measuring" of appropriate number of windings to ensure proper weft yarn length. That was the objective that led to the use of weft storage drums in weaving machines of all types.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert H. Muromoto, Jr. whose telephone number is 571-272-4991. The examiner can normally be reached on 8-530, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary Welch can be reached on 571-272-4996. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bobby Muromoto  
Patent examiner  
October 31, 2006

A handwritten signature in black ink, appearing to be 'Bobby Muromoto', located below the typed name and date.